



**BEST PRACTICES REVIEW OF THE
BOULDER MOUNTAIN
AVALANCHE RESPONSE**

**CONDUCTED
APRIL 17, 2010 IN
REVELSTOKE, BC**

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THE BOULDER MOUNTAIN AVALANCHE INCIDENT
HELD APRIL 17, 2010 IN REVELSTOKE, BC**

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LIST OF ACRONYMS

ASE	Air Service Emergency
BCSARA	British Columbia Search and Rescue Association
BCAS	British Columbia Ambulance Service
CAA	Canadian Avalanche Association
CAC	Canadian Avalanche Centre
CARDA	Canadian Avalanche Rescue Dog Association
CMH	Canadian Mountain Holidays
CISM	Critical Incident Stress Management
ECC	Emergency Coordination Centre
EMBC	Emergency Management British Columbia
EOC	Emergency Operations Centre
EPC	Emergency Preparedness Coordinator
ERI	Emergency Response Institute
ESS	Emergency Social Services
ESSD	Emergency Social Services Director
ETA	Estimated Time of Arrival
Heli	Helicopter
IH	Interior Health
NOTAM	Notice to Airmen
OARTL	Organized Avalanche Response Team Leader (OARTL)
PEP	Provincial Emergency Program
QVH	Queen Victoria Hospital
RCMP	Royal Canadian Mounted Police
RMR	Revelstoke Mountain Resort
SAR	Search and Rescue
SARVAC	Search and Rescue Volunteer Association of Canada
SMH	Selkirk Mountain Helicopters
STHS	Selkirk Tangiers Heli skiing

**EMERGENCY MANAGEMENT BC
PROVINCIAL EMERGENCY PROGRAM**

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MINUTES

Dave Brewer, Facilitator, welcomed everyone and brought the meeting to order at 0900 hours, explaining that the purpose of the Review is to acknowledge and recognize what went well and to acknowledge and recognize that some things can be improved upon.

1. APPROVAL OF THE AGENDA

Moved: David
Seconded: Mike
Unanimous
Carried.

2. WELCOME

David Raven, the Mayor of Revelstoke, welcomed the participants and invited them to visit the community and see both the beauty and the risks of this environment. On behalf of the City, he expressed his appreciation and thanks to all those involved in the rescue efforts, noting that it was almost miraculous to get 30 injured people and everyone else off the mountain in the amount of time that it was done.

Senior EMBC/PEP Regional Manager, Peter Prendergast also thanked everyone stating what a very positive example this was of an integrated and coordinated response by numerous agencies and volunteers.

Jeff Haack, SAR Specialist EMBC/PEP welcomed and thanked everyone for their contribution both today and throughout the year. He encouraged the participants to think outside the box to improve the service.

Wendy Hetherington, BC Search and Rescue Association Regional Director also welcomed and thanked the participants expressing her appreciation of everyone's efforts.

Jacquie Olsen, RCMP Staff Sergeant, conveyed her appreciation on behalf of the RCMP, noting that this was a major event, involving numerous resources. The community showed great selflessness with everyone working together to get the job done.

The Coroner Tom Pawlowski and Tim Loader, Coroner of Golden were unable to attend the Review but passed on their gratitude to the responders. They appreciate all the assistance and recognize the capacity of the volunteers and agencies.

3. THE REVIEW PROCESS

3.1 History of the Best Practice Review Process

The Review Process was developed to meet a need. Previously, rather than discovering lessons learned, blame was placed on people and the process was called a debrief, critique, or post mortem – all negative connotations. There have been 17 formal Best Practice Reviews done since 1998 and all have had positive results.

The process is a “living” document and ideas for changes to the process are welcomed. Please provide your input to Linda West (lwest@jibc.ca) if you have any suggestions as to what went well and what didn't go well. When changes are made, they are vetted through the BCSARA Board, then forwarded to EMBC/PEP for approval and acceptance.

The current process has been recognized and approved by EMBC/PEP as well as by SARVAC.

3.2 Conduct of the Meeting

Dave asked the participants to adhere to the following requests:

- raise your hand to be placed on the speaker's list
- place pagers and telephones on vibrate
- no cross talk – it is important for everyone to hear what you have to say
- do not use names – instead use functions such as “RCMP officer” or “SAR Manager from Revelstoke”, “SAR Manager from Nelson”, etc.
- when making a recommendation, use the format:
 - o Observation
 - o Comments
 - o Suggestion or Recommendation
 - o Suggested Action by (Organization)
 - o Suggested Action by (Person)
 - o Proposed Completion Date
 - o Proposed follow up date by EMBC/PEP or Police
 - o Proposed date for a status report to BCSARA

It was explained that there would be four opportunities available to highlight a best practice or to provide recommended changes from something that hindered the activity to something that will help the activity to become a best practice.

3.3 Roles of the Review Team

The role of Facilitator is to explain the process, guide participants through the process, and make sure that everyone that wishes to, has an opportunity to speak.

The Recorder's role is to capture the information and provide a report.

The Co-Facilitator's role is to assist with the process, while using the process as a learning opportunity.

3.4 Objectives of the Review Process

The three main objectives are:

- i) to provide all persons with a chronology of all activities
- ii) to revise/create pre-plans to increase safety, efficiency and effectiveness for all future SARs
- iii) to discover operational opportunities.

The objective of a SAR response is to safely and quickly locate the subject, provide assistance and move the subject to safety. To support this objective we need the following elements:

- A coordinated, integrated, layered response. This is done through:
 - o Communications. It is vital that everyone continuously communicate.
 - o Mutual Aid. SAR groups can be moved throughout the province. We need to look at how we move them and integrate them.
 - o Pre-plans. If you don't have one, you need to develop one and exercise it annually. There are many samples of Pre-plans on the BCSARA website.
 - o Best Practices. Determine what works well in your community with the resources that you have. Best practices are identified in the SAR Management Manual, on the BCSARA, SARVAC and ERI websites and through the BCSARA Board. The Board consists of representation by two SAR volunteers from each region, RCMP/Municipal Police, BCAS, Fire Chief's Association of BC and EMBC/PEP.
 - o Community Emergency Plan. Ensure the plan is relevant and current.
 - o Plan, Organize and Manage (POM). You need to determine "who is doing what, under what circumstances, with what resources, to achieve what objectives, within what time lines." Answering these questions will re-force the other key elements that support the original objective.

4. CHRONOLOGICAL OVERVIEWS

4.1 RCMP

March 13, 2010

- 1528 - Received call of multiple beacons being activated on Boulder Mountain to RCMP dispatch. Further calls received indicated conflicting numbers of people involved – 200; 10; 50 people.
- 1530- Revelstoke Detachment advised.
 - Selkirk Mountain helicopters requested to fly over and view scene.
 - Detachment Commander advised.
- 1533 - RCMP avalanche dogs contacted.
- 1537 - SAR advised.
 - BC Coroner Service in Golden advised.
- 1548 - Hospital advised of potential casualties.
- 1550 - Media Relations officer contacted to get preliminary release out.

- 1557 - Extra manpower from District (Tactical Team) contacted.
- 1559 - Ambulance resources at the RCMP office.
- 1605 - Members sent to Selkirk to get ride up to the mountain.
 - Victim Services contacted and advised.
- 1611 - Nelson and Nakusp SAR contacted.
- 1623 - CMH advises 2 code red patients.
- 1632 - Advised of upwards of 10 buried. Forensic Identification member arrives advised to go to Selkirk for ride up to site. Arrangements made with Executive Flight for morgue / mass casualties potential.
- 1641 - Advised 6 injured and 2 deceased, evacuation from the mountain starting.
 - Commercial guides begin responding.
- 1655 - Member sent to hospital to assist with deterring landing of helicopters, they were rerouted to the airport. Members sent to Boulder Mountain parking lot for security, statements, accountability as further members arrived sent to other locations to do as noted.
- 1725 - 3 RCMP members arrive at the scene.
- 1805 - Members are last ones off the mountain.
- 1845 - SAR debrief and planning session for the 14th.
 - Members sent to the hospital for security, taking of statements, identification, accountability.
 - Members sent to Community Centre (ESS) for security.
- 2100 - At Queen Victoria Hospital for debrief on patients and response.
- 2115 - Superintendent arrives and takes command, Tactical Troop debriefing and duties assigned for hotel checks - accountability, and security.
- 2130 - Deceased identified and started process for advising next of kin.
- 2200 - NOTAM put into place.
 - Security left at 3 locations for the evening to prevent access to the mountain.

March 14, 2010

- 0630 - Morning debrief - were able to account for 45 of the 47 unaccounted for people during the evening.
 - Members attended to Turbo bowl to conduct investigation and to retrieve the second deceased.
 - Media relations officer working with media.
 - Victim services from Salmon Arm attended to assist.
 - Statements from witness' being taken.
 - Tracking down leads on outstanding persons and reports of persons in the area.
 - Security continuing on all access points to the mountain.
 - Debris (sleds and equipment) being removed from the mountain and taken to Executive Flight. Member assigned to account for and document all equipment.
- 1330 - NOTAM violation reported, member dispatched to airport to locate violator.
- 1400 - RCMP dog master indicates confidence level is high, due to probe line and beacon searches, of no further subjects, however until all debris is gone, dogs will continue to hit on debris. Final sweep will have to be made on 15th.

- Members being released to return home, 2 security points left.
- 1735 - NOTAM extended for a further 24 hours.
- 1800 - No outstanding person reports.

March 15, 2010

- Statements continuing.
- Documentation of debris continued.
- 1315 - CARDA dogs complete final sweep, extreme confidence no one left on the mountain.
- 1330 - Security personnel told to stand down.
- 1330 - Boulder Mountain opened to the public for access.
- 1845 - NOTAM lifted.

38 extra resources were brought in for security and accountability of all potential victims.

4.2 Selkirk Tangiers Hel8i Skiing (STHS)

March 13, 2010

- 1534- Receive notification from Revelstoke Mountain Resort (RMR) via telephone that they have been informed of a massive avalanche at Turbo Hill and 100 people are buried.
 - Guides were returning from the field and STHS begins mobilization and initiates plan CHARLIE, (internal rescue plan call out for full call out, call all neighboring agencies for help).
 - STHS notifies:
 - CMH Revelstoke
 - CMH Banff Office
 - Parks Canada
 - CARDA dog handlers
 - RCMP
 - Hospital
 - STHS dispatch, and office staff do full call out for help and begin running our rescue plans.
 - No clear leadership for rescue, either RCMP, PEP, or us
- 1545- STHS notifies hospital of mass casualties coming in soon, get ready. We are given permission to land at hospital when we are inbound with code red patients.
- 1547 - Bell 205 helicopter FHB lifts from STHS Revelstoke hangar to STHS base to get guides.
- 1548- 2nd Bell 205 FRE lifts from Albert Canyon Base with 3 guides on route to Revelstoke.
 - STHS hears from Selkirk Mountain Helicopters confirming large scale avalanche with mass casualties.
- 1603- FHB arrives at site with 8 STHS guides – first on site.
 - STHS guides assess scene for safety on debris, some hangfire hazard, but deemed acceptable.
 - Site commander from STHS attempts to set up staging areas, communications, etc. with STHS Revelstoke base and get control of situation.

- Site is chaotic “war zone”. Estimated 150 people on site (snowmobilers). There are obvious injured people, people digging, some probe lines, people fixing and digging out sleds, fires burning on debris.
 - STHS guides attempt to set up field command for scene.
 - STHS guides begin trying to get handle on situation, talking to people trying to figure out how many are still missing.
 - This is basically impossible as no one really knows how many people were involved or missing.
 - Transceiver searching was not easy to do as many bystanders are still transmitting.
 - Priority is given to administering first aid/ triage and evacuation of critically injured.
- 1604 - CMH helicopters/ and guides start arriving on mass (numerous helicopters from different lodges).
- 1605- FRE leaves RMR with 7 RMR patrollers and 4 guides and Avalanche Dog.
- 1620- FRE helicopter arrives at site.
- 1630- FHB helicopter loads 1 code red and 1 code yellow and transports direct to hospital.
- STHS sends 3 ski techs to hospital to assist with unloading helicopters.
 - Hospital still not ready or prepared for casualties.
 - FHB stops at STHS base and picks up additional Guide.
 - FHB takes another load of RMR patrollers from ski hill and returns to scene.
- 1640- FRE loads a number of patients and flies to hospital.
- STHS establishes Executive Flight Center as staging area.
- 1701- FHB back at scene.
- 1706 - FRE leaves hospital to ski hill to get 3rd load of RMR patrol.
- We are told to no longer land at hospital, but to use airport.
- 1708- FHB inbound from scene with more injured.
- STHS site commander works with CMH site commander for joint control on situation.
- 1718- FRE back to scene with rescuers.
- 1726- FRE at Executive Flight Center standing by.
- STHS ski techs use 15 passenger vans to assist transporting injured from airport to hospital.
- 1730 - STHS/ CMH site commander stands down any additional resources/ aircraft as nightfall is setting in and priority is now to get all injured and rescuers off scene before dark.
- 1740- FHB is down at Hangar with load of uninjured sledders.
- 1748- FHB/ FRE requested by STHS site commander to stand by in meadow near site.
- 1754- FRE leaves site with load of rescuers.
- 1811- FHB helicopter off site.
- 1820- Joint field commanders (STHS/CMH) are last to leave scene in CMH 407 -visual sweep for any snowmobilers or rescuers still on site, no one left.

Debrief of first day and was asked to assist the next day.

March 14, 2010

- Assisted with risk analysis to determine if it was safe to bring rescuers back to the scene.
- Did some avalanche control.
- Proceeding with assisting. Parks Canada took a joint lead in commanding operations.
- Continued searching until 11:00 when they were confident there were no persons missing. Then began a clean-up effort as debris was everywhere. It needed to be cleaned up for a final search by CARDA the next day. Slung at least 48 snowmobiles off the site.

STHS resources/ personnel involved in response

2 Bell 205 Helicopters with pilots

10 Guides on scene

3 Guides assisting at base with logistics/ coordination

2 dispatchers

6 office staff assisting with communications/ callouts etc

3 ski techs assisting with transportation/ unloading of injured at hospital/ airport

4.3 Revelstoke Mountain Resorts

- 1527 – Received transmission on RMR operations channel 1 with Kepex reporting a “very large avalanche” on Boulder/Turbo Mountain. Initially reported 100 people buried. When asked to reconfirm number of people involved, was told it was a large crowd of people, possible 100. Requested 911.
- 1528 - Called 911 and spoke to RCMP dispatch. Notified them of location and estimated number of people involved.
- 1530 - Situation announced on RMR patrol channel. CARDA begins to gear up as well as other patrol members.
- 1531 - Revelstoke SAR contacted and updated on situation.
- 1533- CARDA standing by at gondola top.
- 1534- Notified STH dispatch and guide of situation. Advised that we will defer to RCMP and Revelstoke SAR but are preparing for transport of resources from gondola top.
- 1537- Notified CARDA of situation. Heading to Sunnyvale for staging.
- 1539- Mobilizing team at gondola top for transport via STH to site.
- 1540- Received transmission on RMR Operations Channel 1. Coordinates provided. Approximately 50 people with probes and shovels on scene at this time.
- 1541 - Begins organization of staff and qualified, prepared public into teams.
- 1544- Revelstoke SAR updated of situation and available resources.
- 1549- Advised STH has 8 guides available for rescue operations and 2 machines: 1 A-Star, 1 Bell 205. STH has contacted CMH, Park Wardens and Queen Victoria Hospital.
- 1550- Start formally calling in RMR rescue resources. Will stage at Sunnyvale (operations).
- 1552- Provided UTS site coordinates to STH dispatch.

- 1555- STH Bell 205 en route to gondola top with 3 STH guides and 8 patrollers.
- 1556- Revelstoke SAR updated. Site command for RMR identified. Site Command for STH identified. Both commands to act under Revelstoke SAR authority.
- 1559- STH 205 in-bound for gondola top. RMR staff to operate on PEP radio channels while off resort.
- 1610- Staging for second flight to be at gondola mid.
- 1614- Contact with unidentified party on scene via RMR operations channel 1. Subject reports that most people are believed to be located. Multiple injured people on scene – one non breathing subject receiving CPR, 1 fractured leg.
- 1633- Unable to make contact with scene on either RMR operations channel 1 or PEP channel.
- 1635- Contacts STHS dispatch for update on heli status and to confirm they have radio contact with scene. Radio contact negligible with staff on ground. One heli inbound to airport code red, the other heli on the ground on scene.
- 1640- STH A-Star en route to gondola mid for pick up after dropping code red.
- 1642- Two CARDA on scene via SMH.
- 1644- Golden SAR Machine inbound for site.
- 1650- Second heli lifted off from gondola mid.
- 1705- Unidentified announcement – too many helicopters on scene now.
- 1709- Third heli lifted off from gondola mid.
- 1729- Third heli told to stand down. Heli and crew go to Prestige Hangar on Westside Road.
- 1738- Arrangements made to pick up crew at hanger.
- 1742- Unable to raise on scene personnel on PEP or RMR channels.
- 1750- Radio contact on CMHR R channel. Concern about loss of daylight. Helicopters trying to get out everyone possible before dusk.
- 1755- Unidentified announcement on CMHR R – no more machines allowed on site.
- 1803- All RMR personnel clear of site with exception of one.
- 1803- Unidentified announcement on CMHR R – all remaining people on scene egress via sled. Site clear.
- 1803- Avalanche approximated at size 3-3.5 with up to 1 meter crown, debris extending approximately 400m.
- 1811- Informed Revelstoke SAR that all RMR resources are accounted for.
- 1816- All RMR staff on the ground and clear.
- 1819- Updated RMR Vice President of the situation.

4.4 Canadian Mountain Holidays

Mountain Safety Manager:

Staff involved:

- CMH Revelstoke guide teams x 2 (total of 7 on site) with two helicopters (407 ALG and 212 IRZ).
- CMH Gothics guide team (total of 2 on site) with one helicopter (212 AHL).
- CMH Adamants guide team (total of 5 on site) with one helicopter (212 4KA).

- CMH Monashees guide team (6) with one helicopter (212 AHK).
- CMH Rescue Site commander, Assistant Area Manager in coordination/ cooperation with STHS Operations Manager.
- CMH Base commander Revelstoke, Area Manager (and extra guides, support staff, heli pad, airport, transportation etc.).
- CMH Banff Office commander: Operations Coordinator/ Admin. team (and support staff).

Sequence of events:

- 1530- PST CMH Revelstoke area manager at base and assistant area manager who is skiing with guest in the field, received call over radio from STHS about Boulder Mountain avalanche. At the same time SMH pilot also advises over radio (CMH frequency) about the avalanche and states he will make a fly by.
- Shortly after he reports: "...it's huge, it's terrible....many involved".
 - CMH Revelstoke mobilizes with 2 helicopters and guides.
- 1547- PST CMH office in Banff receives a call on the emergency line from STHS requesting assistance in their response to an avalanche (huge, snowmobilers) on Boulder Mountain.
- 1550- SMH (Chris R.) first heli on site; confirms large scale rescue needed.
- 1557- CMH Revelstoke (RE) calls Plan Oscar to Banff; all 3 neighbors required.
- 1559- CMH Adamants (AD) mobilized
- CMH Gothics (GO) mobilized
- 1600- First CMH helicopter 407 (ALG) lands on accident site with three guides; they are 3rd heli to arrive, just moments behind STHS 205. Todd Guyn (CMH) and Jeff Honig (STHS) take on "site command".
- 1609- CMH Monashees (MO) mobilized
- 1615- Second CMH RE helicopter 212(IRZ) arrives at accident site with 4 guides.
- 1631- CMH GO guides and heli 212 (AHL) 5 minutes ETA to accident site.
- CMH AD guides and heli 212 (4KA) 14 minutes ETA to accident site.
 - CMH MO guides and heli 212 (AHK) 40 minutes ETA to accident site.

CMH Rescue Site Commander:

CMH PLAN OSCAR (request for **O**utside assistance)

March 13th, 2010

- 1530- Radio call from STHS re avalanche at Boulder Mountain, possible 200 people involved.
- Guide returns from skiing (ALG-407) to hangar with guide to drop guests and picked up another guide.
 - STHS calls plan Charlie.
- 1550- SMH is first heli at site; confirms large scale rescue is needed.
- Guide flies in ALG to site Turbo hill, recon avalanche with several orbits to check safety and scale.
- 1600- CMH on site; 3rd helicopter to arrive, STHS lands seconds before us;
- SMH, STHS, and CMH

- Initial observations – many snowmobiles buried and snowmobilers starting to search and dig; approx 150 to 200 people on site.
 - CMH Guides disembark and begin first aid on victims.
 - Try and collect info from snowmobile group; no one in charge, but talk with 3 individuals about site and people involved; info ranging from 0 persons missing to 30 people missing.
 - Can find no one in charge and decide to start organizing the rescue.
 - Ask rescuers to go to RE direct radio FX.
 - Ask as many as possible to go to search, hopeless.
- 1615- Decide to clear site of all people, stop probe lines, and ask all snowmobiles to leave area.
- Takes approx 20-30 minutes to clear site of uninjured snowmobilers.
 - Continue triage with info from STHS and CMH personnel.
 - Heli evacuation of all 'code red' injuries.
 - Helis from CMH RE 212, STHS with RMR staff and dogs and SMH with Revelstoke SAR; all arrive with personnel.
 - Continue Heli evacuation of injuries.
 - Search for victims continues in lower slope and upper reaches of slide path.
 - CMH Gothics arrives with guides and rescue equipment.
 - Heli evac continues with injured parties.
 - Golden SAR arrives with crew, blade strike occurs with blanket onsite, no damage identified.
 - CMH Adamants arrives with guides and rescue equipment.
 - SMH arrives with Revelstoke SAR and RCMP.
 - CMH MO arrives and is asked to send Heli but not personnel.
 - Parks Canada arrives in Revelstoke but is told to hold in there as no more resources are needed.
- 1715- Plan is discussed with Operations Manager and Golden SAR Manager to start demobilizing and removing all persons at site.
- Ask for count on any injured parties left, 0 injuries left.
 - Ask for count of heli at site; get 4x 212, 1x 205, 1x 407, 1x Astar (more at Revelstoke base).
 - All personnel begin flying back to Revelstoke.
- 1820- Operations Manager and Asst Area Manager are last to leave site in Revelstoke 407; do sweep of area, see only 3 sweep snowmobiles leaving area, fly home.
- Approximately 12 helicopters responded – CMH 1x 407, 4x 212, Selkirk Tangiers 2x 205, Selkirk Mountain Helicopters 2x Astars, Parks 1x407 and Arrow – 1 machine??
 - Evacuation injured to hospital via airport landing, 2 helis did land at the hospital and all others rerouted to airport
 - BC ambulance transport to Revelstoke hospital.
- 1900 – 2100 - meeting at the RCMP office, attendance CMH, STHS, Parks Canada, Golden SAR, Revelstoke SAR, others were there but these were the main players.

- Parks Canada to lead rescue on Sunday; Parks Canada in charge with assistance from Golden SAR Manager. Running from RCMP office in Revelstoke. Field to be run by Parks Canada with assistance from Assistant Area Manager and Operations Manager.

March 14th, 2010

- 0630- Meet with Parks and Operations Manager to return to site.
- Fly to site and review avalanche risk – decide to do avalanche control.
 - Mark victims at site first and remove some rescue gear.
 - Avalanche control results; 1x sz2, 2x sz1.5.
 - Beacon search of main site, no further signals located; Parks Canada do beacon search of 2 different lobes, no result.
 - Dogs and SAR group brought in.
 - Dogs search and probing is done with no results.
 - RCMP determines no others to be located based on search of vehicles left at trailheads and hotels and no reports of people missing.
 - Search is halted by parks Canada and RCMP.
 - Much debris left at site.
 - Begin removing sleds left at site – by helicopter to Flight Exec Centre.
 - Removed approx 48 sleds.
- 1700- Depart site for Revelstoke.

CMH Lead Guide

About 15:45 landed with 2 other CMH guides at the Turbo Hill avalanche site. There were roughly 200 people at the site (snowmobilers and rescuers). We had a good look at the hang fire before we landed; we were feeling comfortable to land and help. We got out of our helicopter (ALG-407) and walked to about 20 males standing all together. My transceiver was on search and I kept getting many signals because everybody seemed to be on send. It was chaos. I asked around if there are people still buried. The answer I got was that 2 people were dug out. I kept going down the avalanche path. I was getting multiple signals; from there I focused on giving first aid. I think that every body was on send (no point of searching anymore!!).

I walked down 50 m. and asked if anybody needed help. I heard a “yes” on my right. I saw a male lying on his back unable to move with a female friend on the side crying. The male was suffering from major pain in his back, neck and ribs. His friend was crying and said that she had some pain in her lower back. STH guide asked what I needed. I answered: a spinal board and c-collar and O2 and a helicopter to fly the male subject and his friend to the hospital. We packaged him, then loaded them on the STH heli. STHS Guide flew with them to the airport; then an ambulance took them both to the hospital.

I kept walking down the avalanche path asking if anybody needed help. Straight down I heard a “yes, we need help”. I came upon a male lying on his back on the snow with his dad on the side taking care of him. The subject was in his early 20s. He had blue lips was having a hard time breathing, complaining of pain in his back and pain in his rib. I called my co-workers (guides) to get me a spine board, c-collar and oxygen. I pulled out my pocket mask and started to assist his breathing, showed someone how to do c-spine

control. My co-workers (guides) showed up with the O2 and all the equipment needed. I got 5 snowmobilers to dig out a landing site and clear the area of packs and loose snowmobile parts. I packaged the subject, while another subject was brought down by the RMR ski patrol to be loaded on the same flight (possible pneumothorax). The 212 (CMH Revelstoke IRZ) Alpine helicopter landed and we loaded both patients plus the dad. I was on the flight assisting the subject's ventilations. We landed at the airport; the ambulance took all of the patients plus the dad to the hospital.

I went back to the site with the 212. We landed and picked up another subject with a broken leg; I stayed on board and gave O2 to the subject. We landed at the airport and the ambulance took subject to the hospital.

I went back to the site with the 212. We landed and waited for further instructions from the site commanders. We picked up some of the gear and stayed on stand by for any further instructions.

At around 18:00 we were asked to leave the site due to fading day light.

CMH Gothics Area Assistant Manager

Another guide and I were guiding a private group for the afternoon and had just returned from skiing (approx 1600 hours) when we received a radio call from the GO house staff that the Banff office had called with a Plan Oscar. We began to get dressed to go back out in the field. Asked the maintenance person to start organizing rescue gear. Let the pilot know what was going on. I called the office and was advised that there was a large avalanche in the Boulder Mountain area with snowmobilers and that up to 100 people were involved.

We loaded the ship with fuel and rescue equipment (toboggans, resuscitation pack, AED, O2, overnight bag, shovels, wands) and departed for the Revelstoke area.

It took approx. 20-30 minutes to reach the area. We contacted the area manager at CMH Revelstoke and let him know we were heading to the rescue site with rescue gear. Were told to get in touch with the site commander.

Once in the area, the pilot was busy talking with the other pilots to avoid any conflicts (there were helicopters everywhere!). Site Commander told us to land right in the middle of the staging area. We landed and unloaded our gear. Pilot flew away and sat in a meadow a few hundred metres away. He was on his own, and stayed in touch with the site commander, we did not talk to him until later that night. He made a few trips to Revelstoke with injured snowmobilers.

The area looked like a war zone. There were about 200 people with pieces of sleds and debris strewn for hundreds of metres. Our initial impression was that there must be 30-40 people buried. Doing a transceiver search was useless as there were too many people around from the sledder community moving around on foot and machines still on transmit.

Asked Site Commander what he wanted us to do. He told us to get into first aid mode. For the next, for what seemed 1-2 hours, we helped other CMH and STHS guides, ski patrol (Revelstoke and Golden) and a few snowmobile volunteers stabilize, package and evacuate injured victims. The level of first aid applied was minimal. We would manually immobilize the victim, put a c-collar on, roll them onto a spine board, place a blanket on them and apply oxygen (if necessary). Once we had them bundled we would let the site Commander know that we needed a 212. One of us would clear the people out of the way in the staging area and provide reference for the 212. We then loaded the subject with one rescuer on the 212 and off they went to Revelstoke. I recall loading 5 subjects (including 1 injured child) plus 1 fatality.

The whole scene was pretty chaotic. Most of the snowmobilers had little to no first aid training and seemed unable to help themselves or others. Many just stood around, dug out their sleds or rounded up their gear.

Once all the injured were evacuated we were asked to start rounding up the sledders at the staging area who needed a ride out and to let sledders with working machines know to make their way out to the parking lot.

It was getting dark. We loaded all the gear, sledders and rescuers onto helicopters and flew out to Selkirk Mountain Helicopters.

We spent the night in town, at home. Woke early, met the pilot and returned to the GO to guide.

4.5 EMBC/PEP Regional Manager, Southeast/Central Region

Saturday, March 13 2010

- 1528- Initial notification from ECC advising of avalanche with up to 200 people possible trapped.
 - Briefing of Provincial Deputy Minister and SAR Specialist.
- 1550- Request for 2 ASE to transport additional SAR personnel from Revelstoke.
 - Avalanche technicians from Revelstoke en route.
 - Joint Rescue Coordination Centre contacted, 442 available if required.
 - Requested to have additional mutual aid - Nelson SAR, Arrow Lakes SAR.
 - Parks Canada contacted for additional assistance.
- 1644- Advised of more accurate numbers, six patients brought out and two confirmed fatalities.
 - Initiated call for Critical Incident Stress Management Peer.
- 1744- Advised all helicopters are out of the field.
 - No additional people reported missing or unaccounted for at this time.
- 1754- Approved request to open Reception Centre at community center primarily for information center.
 - ESS to coordinate and activate.
- 1833- BCAS reports 25 patients, 5 critical that need to be moved out to other hospitals.
 - Ministry of Health duty officer advised.

- 1851 - Briefing from Golden SAR Manager – request for NOTAM for morning.
- 1958 - Conference call set up with SAR, RCMP, EMBC/PEP.
- 2027 - ESS approved to source accommodation/food/transport for out of town SAR personnel.
- 2120 - Updated situation report – Golden SAR Manager.
 - Approved ASE for crew transport, body recovery and heli bombing.
 - ESS continuing to provide logistical support for out of town teams.
 - Conference call set up for morning.

Sunday, March 14 2010

- 0736 - Situation update – no unaccounted for vehicles at trailhead, no missing person reports filed with RCMP.
- 0806 - MoTI offered additional Avalanche personnel if required, advised currently sufficient numbers at site.
- 0930 - Conference call – RCMP, SAR, Parks Canada, BCAS.
- 1106 - Approval for ASE to sling sleds out of area due to safety concerns.
- 1644 - All SAR resources out of the field for the day.
 - Scaled down response expected for tomorrow.

Monday, March 15 2010

- 1207 - Update from SAR Mgr – 5 dogs teams, 10 SAR personnel, 26 sleds removed – RCMP lead on cataloguing sleds for ownership.
- 2208 - RCMP stood the task down.

4.6 Interior Health

March 13, 2010

- 1548 - Queen Victoria Hospital (QVH) switchboard received notification from Selkirk Tangiers that there was an unconfirmed avalanche at Boulder Mountain. Possibly 100-200 involved.
- 1549 - QVH switchboard received call from BCAS of same.
- 1550 - QVH switchboard received call from RCMP of same.
- 1551 - Switchboard/Registration staff informed Nurse in Charge then the Nursing Coordinator at home.
- 1553 - Nursing Coordinator on site.
- 1555 - Nursing Coordinator received call from BCAS – to expect approx 1-10 patients.
- 1601 - Switchboard/Registration staff informed Manager of Revelstoke Health Services [who was also the Admin on-call for Revelstoke/Salmon Arm/Cariboo].
 - Fan out continued for call out to physicians/nursing staff/housekeeping and preparations to receive the casualties began i.e. additional supplies brought down to Emergency Room, opening of PAR and rehab areas as per our Mass Casualty plan.
- 1615 - Manager of Revelstoke Health Services on site checked that supplies/staffing/areas opened as per plan, requested that Lab call in more staff and ensure that DI staff fan out also under way. Requested that visitor car park be cleared in the event that any critical patients were flown straight to hospital.

- Queen Victoria Hospital does not have an approved helipad and in extreme circumstances the visitor car park has been used by helicopter to land but at the pilots own risk.
- 1620- Helicopter landed in QVH car park, pilot indicated to nursing coordinator that there was 200 people still on mountain and that it was urgent he returned to assist with extraction of same.
- 1625- Nursing coordinator called BCAS regarding this update and that we needed assistance as information we had just received indicated 200 people and we needed confirmation of numbers.
- 1627- First patient admitted and patients continued to arrive through to 20:00 hrs with a few stragglers up to 2300 hrs bringing total of 30 patients on the 13th March then one final patient presented at 1047 on 14th March bringing overall total to 31 patients treated at Queen Victoria Hospital.
- 1630- By this time, majority of the staff and physicians arrived – total of 50 staff including 6 physicians responded to the incident.
- 1630ish – RCMP Officer assigned to us for security with call from Staff Sergeant asking if we needed further assistance from RCMP at that time.
- 1630ish Victim Support for Revelstoke arrived and were ready to assist victims/family members etc in the main lobby. Chairs and refreshments were ready.
- 1630 - 1645 Manager of Revelstoke Health Services notified Interior Health Leadership Team [On-call], Shuswap Lake Hospital Shift Coordinator, Admin on Call for Royal Inland Hospital of the situation and the need to prepare for casualties/provide assistance/ensure plans were in place to make room in Intensive Care Unit.
 - Program Administrator for Thompson Cariboo Shuswap Acute Care Services then set up teleconference for 2100 hrs to facilitate update from Manager of Revelstoke Health Services, Nurse Coordinator, the Mayor, RCMP to the CEO – Interior Health, Chief of Nursing Interior Health, Thompson Cariboo Shuswap COO, Health Service Administrator – Royal Inland Hospital.
 - Ongoing communication from BCAS/Calgary STARS to Manager, Nursing Coordinator and Physician Lead giving assistance and confirming that critical care response teams were en route.
- 1705- Called RIH ER to give quick update as to numbers through at present.
- 1800- Requested for Shuswap Lake General Hospital to have DI Tech and Dr available incase we needed to access the CT Scanner.
- 2021- Update to IH Leadership. No confirmation yet at this time of numbers of people that were on the hill when the avalanche happened. At this time had received 24 patients, 4 of which require transfer to tertiary hospitals in process of being prepared for transfer as road transfer required as too dark for aircraft to land at Revelstoke.
 - 1 patient to Royal Inland Hospital, 1 to Kelowna, 1 to Vernon and 1 to Calgary. 2 patients admitted to Queen Victoria Hospital plus 1 short stay plus 1 received day case surgery on site.
 - Had heard but awaiting confirmation that there are 2 DNAs.
 - Search has been called off tonight and a probe search will resume in the morning. Onlookers think there were approx 100 sledders taken out by the avalanche.

- 2100 -Teleconference as per discussions 1630-1645 to give IH Leadership update as to events and if further resources required. Informed from RCMP that the avalanche area was approx $\frac{3}{4}$ to 1km long and 150m across and 30 m deep. 2 confirmed deceased.
- 2240– Update to Leadership. At this time 27 patients had been seen plus one male in morgue with another body on the mountain which will be retrieved tomorrow morning in addition to probe search and avalanche dogs searching the area.
- 2300- Double check of casualty log with admission print out and with Revelstoke Chief Paramedic to ensure all accounted for.
- 2325- Update to Leadership. 29 patients seen.
- 2340- Update to Leadership. 30 patients seen.
- 0008- Email regarding update of numbers seen/treated sent to Mayor, RCMP and Interior Health Chief Communications Officer.

All patients seen, treated and either discharged or transferred as per above, area cleaned and prepared for next day.

Sunday 14th March

- 1047- Patient number 31 presented at hospital for treatment.
- 1057- Update to Leadership. Were waiting to hear from RCMP as they were not starting the search until the area was checked for safety. At current time we still have 2 admits plus a short stay. The day surgery patient has been discharged.
- 1059 - Emailed update to Mayor and RCMP as to 31st patient presenting and patients still admitted at Queen Victoria Hospital.
- Visit from Minister for Public Safety and Solicitor General and Fire Commissioner and Director of Public Safety with the Mayor of Revelstoke.

March 15th – Queen Victoria Hospital Debrief

- 0900- Debrief held for staff and physicians that were involved in the incident. General overview – Mass Casualty Plan worked well, staff knew what to do and the general feeling by all was that it went smoothly with the numbers we had. All staff felt supported with sufficient supplies and staffing to deal with the incident.

Key Areas:

1. Additional slider sheets and slider boards would have been useful given the number of casualties.
2. Decision required regarding heli pad for the hospital as at present the hospital does not have an approved helipad and has on extreme occasion had helicopters land in the visitors car park at the pilots own risk. BCAS crew is required to transfer from car park to hospital.
3. Clear direction needed so that all heli operators know if they are able or not to land at Queen Victoria Hospital. The Revelstoke Airport is approx 5 minutes drive away and is currently the designated area where the

helicopters are to land and BCAS will meet and bring patients to the hospital. Two helicopters did land with patients at QVH on March 13th but hospital staff/BCAS were unaware so there were no ambulance crews to meet the heli crew and transfer the patients into the hospital and at least 3 patients walked from car park to front entrance. Suggestion that for future incidents that an ambulance crew to be assigned to the hospital for the purpose of transferring critical patients. Due to current capacity in the ER having all patients arrive via helicopter would result in bottleneck in the ER.

4. The first 30mins to hour were hard as unsure as to numbers expected. Better communication between rescue teams and BCAS would have then flowed more information to the hospital. As it was we remained focused on the potential of 100-200 patients until we heard otherwise. We didn't use our rehab area so could have dealt with more patients if necessary but if more than additional approx 10-20 patients [depending upon nature of all injuries] we would have had to change our management of the situation i.e. more triage and transfer out to surrounding sites.
5. It was extremely tight in the ER as our space there is limited. Space planning review has already been requested in line with increased activity due to RMR operations.
6. Great assistance from BCAS and other areas i.e. Calgary STARS
7. RCMP were excellent support. We referred media queries to RCMP.
8. Would assign more staff to be communication/porter links with ER/patient registration/DI/Lab and the Command Centre.
9. Housekeeping did an amazing job keeping areas clear and ensuring belongings were bagged and labeled and kept in safe place.
10. Victim Support were a huge help and onsite very quickly to assist victims and their families/relatives.
11. Did not find out that the Registration Centre was set up until later in evening. Could have been deferring people there sooner.

March 16th – Multi Agency Debrief – 1900 to 2200 hrs

1. Main theme was communication. Due to the nature of the incident it was difficult to know exact numbers. Suggestion that need for someone at incident site to be appointed as lead/communication.
2. Recognized by all that the search and rescue teams did an amazing job getting everyone off the mountain by dark and in such a short space of time.

March 22nd – Meeting with Victim Support Worker

1. Use Communication log re calls received from family members. Would in future assign staff member to this task/link in with Victim Support.

2. Suggestion of log of those waiting in reception area and be shared with Victim Support to assist them.
3. Suggestion of access to a phone in a private place for victims/relatives to be able to contact immediate family.
Have designated Room 226 in Public Health Corridor for this purpose as room has table and chairs and phone.
4. Victim Support require Interior Health ID so IH staff know who they are and that they are authorized to be in patient areas.
Complete Victim Support Worker now has IH ID Badge.
5. Suggestion that Victim Support Worker also provide a brief outline of their duties/work area together with picture of worker and volunteer so that this can be shared with Interior Health staff.

4.7 City of Revelstoke

March 13, 2010

- 1735- Call received from PEP “avalanche: tentative 200 people with 20 injuries
- Notified Emergency Social Services Director (ESSD) (she will go to SAR/ESS office, assess needs and report later)
 - Notified Emergency Operations Centre (EOC) Director (CAO) and fire hall call centre.
 - First Assessment: agency lead will be RCMP with SAR assist and may involve a Reception Centre and a Level 1 EOC activation to support Incident Command.
- 1735 - 1900 – Emergency Preparedness Coordinator (EPC) received further updates from ESSD and Mayor.
- ESSD advises that a reception centre has been established and set up of media centre is underway.
 - At 1915 EPC drives to Revelstoke arriving at 2015.
- 2015 – 2115 - Confirmed with ESSD that a Reception Centre with the following had been set up between 1735 and 1900:
- Logistics section
 - Registration area
 - Family reception area
 - Media centre
 - ESS work area
 - Coffee/refreshments organized
- Discussions with Mayor, EOC Director, Fire Chief, RCMP and ESSD established the following protocols:
 - Information (media and families) would be coordinated through RCMP and a RCMP spokesperson was en route

- RAEMP would support RCMP (lead agency) with RAEMP coordination through the Reception Centre (decided that no further activation of EOC would be required; EPC would support and assist the ESSD)
- Reception Centre would arrange for accommodation of incoming SAR members and would support all volunteers by arranging meals.
- RAEMP website emergency notice updated.

2115-2300 - Decision is taken to suspend SAR activities overnight and start at 0700 Sunday morning.

EPC remained in Revelstoke overnight.

March 14, 2010

0700 – 1200 - Throughout the morning:

- It became clear that everyone had been accounted for and no more casualties were expected
- Support of responders continued efficiently
- RCMP spokesperson arrived and several briefings were conducted for a much larger media group
- Approximately 100 people presented themselves to the Reception Centre with several seeking counseling.

1200 - EPC departed.

- ESSD continued with support functions.

4.8 Emergency Social Services Director

March 13, 2010

Set up for national media. Tried to give them a controlled space. There were 25-35 different media there.

Provided support for SAR – accommodation and meals.

Reception Centre closed Monday afternoon.

Location of Reception Centre close to RCMP and SAR.

ESSD was able to segregate media from the rest of the operation so they did not interfere with EOC.

March 14, 2010

Provided ESS registration forms to RCMP so they could register the people coming in and made notes about the equipment left on the mountain so it could be matched up.

Provided support to SAR with meals.

Seven volunteers were involved and they coordinated 350 meals for the 2.5 days.

4.9 BCAS

1541 - Received call from the ECC to Interior Dispatch Centre in Kamloops.

1551- First Revelstoke ambulance called out.

- One ambulance sent to RCMP station.
- 1601 - First subject picked up and transported to hospital.
- 2200 - Last critical subject was transported out.
- 2400 - Stood down.

Kept medical unit in community over the weekend in case of a need for additional equipment. There were about 18 life support paramedics attending, 13 critical care, and 5 ambulances. Critical care was sent from Vancouver, Kelowna, Kamloops and STARS.

A debrief was held the next week noting:

- Communications amongst ourselves worked well.
- Excellent teamwork with hospital – worked side by side with them.
- Level of care was excellent.

4.10 Revelstoke SAR

- Received call-out. Requested an ASE and called in as many Revelstoke SAR as possible.
- Maintained a flight log.
- Established radio communications the next day. Had repeater fixed.

4.11 Arrow Lakes (Nakusp) SAR

- 1620 - Received call out advising of an avalanche with 200 people buried.
 - Contacted team to get ready to go.
 - Contacted local helicopter.
 - Contacted EPC in Nakusp and Fire Chief in case they were required to assist.
 - Tried to contact a CMH guide not realizing that CMH was still running up here. Didn't know if they would require an Avalanche Technician. Wanted to put him on standby.
- 1710 - Arrived on scene by helicopter.
 - Pilot had to return to Nakusp so Selkirk Helicopter was asked to take SAR members back to Revelstoke.

Arrow Lakes SAR came and picked up team members and took them home.

4.12 Nelson SAR

Nelson SAR Manager 1

- 1615 - Called in to the ECC responding to a page for an incident at Boulder Mountain near Revelstoke with the potential of 200 people buried, requesting mutual support to the response. ASE#'s have been approved. Advised ECC Operations Officer I would page out the team and get back to them with response. Inquired if this was for avalanche trained SAR members only or was there a need for SAR Management support [recognizing that an incident of this magnitude may require an ICS fan out], possibly SAR Management, Communications Logging, etc.
- 1620 - Paged out Nelson SAR avalanche trained members. Called Nelson, Organized Avalanche Response Team Leader (OARTL), requesting he line up two helicopters and to include DAM helicopters in that as the pilot is a Class 'D' pilot recognizing there could be a need for additional

- HETS qualifications to support what Revelstoke has in place. Nelson SAR member to assist with Logistics in putting together the team of Nelson SAR members that would respond.
- 1655- Nelson SAR Manager called ECC to advise that 5 NSAR members trained in avalanche response had lifted off. ECC advised that Revelstoke SAR Managers were out of their area and that the Revelstoke SAR Manager accepted the offer of a SAR Management support team to drive up. ECC advised that it was reported there were many helicopters in the area with potential for concern.
- 1700- Telephoned ECC to advise of the support team that would drive up. At this time the ECC advised that Revelstoke SAR member had advised things were going smoothly. I requested to be patched through to the Revelstoke SAR member to discuss if the support team should come that night or not. He was not available and the individual who answered the phone said not to send any more helicopters or help that there was enough. Advised the two had already lifted off and could not be stood down from our end. Inquired if they needed someone to assist with Air Coordination [Special Operations under the Operations Branch]. Revelstoke SAR advised that no further support was needed and to stand down the remainder of Nelson SAR, at this time it was appearing that there were not as many buried and the situation was being dealt with.
- 1710- Paged remainder of Nelson SAR members to stand down and to call in. Conducted some advance planning [in the event there were a large number buried this could go on for days], checking members availability for the next 3 – 7 days, listing qualifications keeping in mind a number of those with avalanche response training would need to be held back in the event of an incident in Nelson SAR's area as there was a severe avalanche warning.
- 1735- Advised the ECC of the advance planning done and that there were people available in the event of further assistance of rotating in to relieve those who may become exhausted over the next day or more.
- 1900- Nelson SAR OARTL telephoned to provide an update that they arrived, what they knew of the situation and the plan for morning where they would be deployed to the field.

March 14, 2010

- 0900- Nelson SAR OARTL, telephoned me to advise they were about to fly out to the site. He requested one vehicle be brought up to bring Nelson SAR gear and at least one member back as one of the helicopters had left and only DAM helicopters remained as requested by Golden, SAR Manager.
- 1000- Departed Nelson to drive to Revelstoke to provide transportation back. I telephoned Golden SAR Manager to advise I was en route to pick up Nelson SAR gear and members and offered any assistance he may need while waiting for the Nelson SAR members to return from the field. Golden SAR Manager accepted and requested I find him when I arrived.
- 1430- Arrived at Revelstoke RCMP detachment and met with Golden SAR Manager, PEP Senior Manager and others in search management.

- 1530- Golden SAR Manager met with Senior Regional Manager and me advising that he needed to return to Golden and asked if I would be willing to take over search management. There were no other search managers present and I accepted.
- 1545- I went to Selkirk Helicopters hangar to meet Nelson SAR members who were returning from the site. While there I met with Fire Commissioner and Minister. NSAR members loaded equipment in to the vehicle and 4 returned to Nelson with DAM Helicopters. Nelson OARTL remained behind as I had brought his vehicle up.
- 1600- A media conference was held with the Minister, the RCMP Liaison, and Golden SAR Manager. Immediately after the media conference I briefly spoke with SAR manger for handover and he left.
- 1630- Took on SAR Management and called a meeting back in the same room at the RCMP with those who appeared to be lead out on the site, PEP Senior Regional Manage, RCMP, CAC and others. I requested a briefing from each person who had come in off the site and to work together to determine the plans for Monday morning. At this time we were unable to find any of the Revelstoke SAR members as they had gone home. I was not able to locate any paperwork or notes on the incident so began with the information I was being briefed on. A Pilot from Selkirk Mountain Helicopters and a Revelstoke SAR member who had been the Rescue Leader on site arrived at the RCMP station at the end of the meeting and provided their input. The activities for the next day were listed and prioritized as follows:
- 0700 – 0900 hours MoT Avalanche Technician would fly out to conduct assessment work he needed to do and do some work near the fracture line. He would bring with him a spotter to assist and work with him.
- 0900 hours the RCMP dog handler would take the lead for the dog handlers and their dogs and be the first ones on the actual site as it would have been able to sit over night and be considered uncontaminated.
- 0930 hours 10 Revelstoke SAR Members [as probers and shovelers] would fly out and be placed to the side of the site in the event the dogs found anything that would require their assistance. Revelstoke SAR would continue as Rescue Leader for the SAR volunteers.
- 1000 hours 4 Revelstoke SAR Members would fly out to the side of the site where all the snowmobiles and debris had been piled to assist Selkirk Helicopters with slinging the remainder of the sleds that were on the surface. A request was made and approved to extend the NOTAM an additional 24 hours [Tuesday morning] in order to keep the area safe while snowmobiles were being slung out. [This was discussed with and approved by PEP Senior Regional Manager, and above as it the machines being left were considered to be a Public Safety issue as people would want to get back in to the site to retrieve their machines and the avalanche danger to get to the site was extreme.]
- All parties in the room contributed to and agreed with this plan.

May 15, 2010

- 1700- Attended at Selkirk Helicopters to meet MoT Avalanche Technician. Both he and his assistant were preparing to fly out to the site.

- 0800- Returned to the RCMP detachment and had learned that there was a room there that the SAR team uses as an office. Two Revelstoke SAR members were there. I introduced myself and advised that the Golden SAR Manager handed over search and management to me and returned to Golden. I advised of the plans that had come out of the meeting at the end of day two. This is where the communications were located and notes they were keeping for the incident. SAR members were being advised to meet at Selkirk Helicopters at 0900 hours.
- 0900- Met with Dog handlers, dogs, and SAR members and briefed all. Reiterating that the RCMP dog handler would be the lead for the dog teams, Revelstoke SAR Team Leader for the SAR members and as a back up to him, if his attention had to go to assist the dog handlers, Nelson OARTL would be team leader for those slinging out the snowmobiles. All safety protocols were discussed at this time. MoT Avalanche Technician radioed in advising he would be another ½ hours before he would be completed and others could come out to the area. This delay gave opportunity for a 20 minute Recon flight of the area for the SAR Manager, Staff Sergeant and CAC Executive Director.
- 0930- MoT Av Tech returned and the dog handlers and dogs flew out followed by the SAR volunteers.
- 1000- The snowmobiles began arriving [being slung out] to a handler next door to Selkirk Helicopter's hanger.
- 1030- Stopped at this hanger en route back to the RCMP station as S/Sgt had requested to meet to discuss demobilization. SAR volunteers were there assisting the RCMP with unhooking the snowmobiles. A request was made to hire a forklift to load the machines on to people's trucks/trailers when they came to claim their machines. The RCMP was cataloguing the machines at this time. I telephoned the PEP Senior Manager for approval and this expense and activity was denied. He advised that the SAR volunteers could unhook the machines and move them to the side and this is where the SAR volunteers' activity would end. I advised the SAR members and the RCMP of this. The RCMP made the decision to have a tow truck company come and remove the machines to a compound and that people could claim their machines there.
- 1300- Returned and met with Staff Sergeant to discuss demobilization. Once the dog handlers along with the prober/shovelers were off the site they would provide briefing of their findings and if nothing further was found the only activity left was to complete the removal of the machines.
- 1400- RCMP dog handler advised there were no indications of anyone buried. It was determined that all effort and resource had been done to ensure there were no further persons buried.
- 1500- Discussed with PEP Regional Manager returning home as there were not many machines left to come out and recommended the Revelstoke Team Leader would remain at the base by the radio to continue communications in the event anything happened and to keep Louise informed.
- 1600- Departed with Nelson OARTL arriving back in Nelson at 2100 hours.

4.13 Canadian Avalanche Centre

March 11, 2010

Canadian Avalanche Centre (CAC) issues fourth consecutive weekend of Special Avalanche Warning for parts of the Columbia Mountains south of Revelstoke beginning Saturday March 13.

March 12, 2010

CAC avalanche bulletin for Friday shows avalanche danger at “High” in alpine areas. Primary concern: persistent slab on Northerly slopes in alpine and at tree-line all day long.

March 13

Approx 1600 received notification of accident. CAC Forecaster took a small number of media calls in the evening; called managers and other forecasters to come in for next day. As the central contact point for avalanche information, the CAC is the “go-to” agency for media responding to avalanche accidents. We see this is as a key opportunity to push out public safety messaging and we work to ensure that our spokespeople are prepared with these messages and endeavour to accommodate as many media requests as possible.

March 14

0630- Initial briefing with forecasters, managers.

0700- Other staff came in to help with phones.

- Close to 50 interviews given over the course of the day. Main focus is on accident information.

March 15

0700- Key messages prepared for shift in media focus.

- Again close to 50 interviews over the day. Focus is now on how this happened and how to prevent the next accident.

4.14 Snowmobile Association

It was explained that the Snowmobile Association:

- keeps accurate stats and their stats show that there were 270 people on the Boulder Mountain on March 13
- is not part of the emergency response teams but has information that they are willing to share and would be interested in being included in discussions
- the BC Snowmobile Federation has extensive safety programs and increasing safety awareness. The programs are working as there have been less SARs than in past years
- print safety bulletins and provide them to the hotels in town.
- work with the Ministry of Tourism and the CAA
- have posted signs on Boulder Mountain advising to be aware of avalanche conditions. The CAA website and phone number is also included and they have posted people at the trail head making people aware

4.15 Coroner

The Coroner's role in any incident that involves a fatality is to become the lead agency. The police will conduct the investigation for them and once it has been determined whether or not it is a criminal activity it will become a coroner act investigation. That has not been determined yet.

The Coroner waited for 3 hours for a flight to get to the scene to get information. The sooner the Coroner can get to the site, the better for the investigation.

4.16 Other

A Critical Incident Stress Peer counselor attended after the incident to assist anyone that need help dealing with their reactions.

5. WHAT HELPED? BEST PRACTICES IDENTIFIED

5.1 Initial Call-out

Dispatchers were excellent. They took on tasks without having to be asked.

5.2 Scene Assessment

A site scene assessment made in the area before helicopters landed to ensure that they weren't going to put any people at risk.

5.3 Accountability

Everyone worked very well to make sure that everyone on the mountain was accounted for. The snowmobile society had a log-in book at their cabin, the hospital provided an injury list, the hotels and motels provided guest information. The RCMP and ESS provided telephone and door-to-door surveys of the community to ensure there were no people unaccounted for. Everyone was extremely helpful by releasing information in a timely manner.

5.4 Site Security

The RCMP closed access to the incident area on the ground. This was invaluable.

5.5 CARDA

There was great cooperation with RCMP and CARDA search dogs.

5.6 NOTAM

It was good to have the NOTAM issued. There was only one violation and that was by media. It is under investigation.

5.7 Commercial Helicopter Operators

Utilizing commercial operators worked really well. They have airpower, manpower, mobility, equipment. Highly trained rescuers made a difference. The ability to fly out the casualties most likely saved a number of lives and the hardworking professionalism of the staff and industry professionals made a difference.

The snowmobile response on scene was good as well. They had most people located and dug out and did a good job of responding.

5.8 Staging Area

Identifying a staging area worked well.

5.9 SPOT Beacons

SPOT beacons worked well as providing quick notification but also created many phone calls from family and the need for more security.

5.10 Critical Incident Stress

A peer counselor was brought in to assist.

5.11 Safety Officer

A safety officer should always be established for any site. In this incident an avalanche professional should be on site to provide safety information.

5.12 BCAS

BCAS was able to set up a mobile treatment centre which worked very well. They also conduct annual helicopter safety training.

6. WHAT HINDERED?

6.1 Communications

6.1.1 Terminology

Different agencies use different terminology – such as code red, code black.

Suggestion: All agencies use the terminology identified in the Incident Command System.

6.1.2 Radio Frequencies

There was a lack of communication. The RCMP weren't able to get someone on scene early enough with a radio so they could communicate with them. Helicopter companies were using their own channels. There is a need for preplanning so that it is immediately established as to what channels everyone will be on. It is possible to assign a frequency for interagency communications during an incident. The commercial helicopter companies are willing to provide their channel to responders.

Recommendation: Develop a communications preplan to increase interoperability within the community.

Action by: RCMP to take the lead.

Name: Constable Randall

Proposed date: May 15 for a first meeting

Follow up by: EMBC/PEP

Status to BCSARA: September 15, 2010

6.2 Removal of Unresponsive Subject

It is important in any police investigation, particularly when it involves a death or injury, that the police know where the subject was. It hinders the investigation if the location of the deceased is not marked in someone and communicated to the police. In this case, a subject was removed as the rescuers treated every subject as alive unless it is extremely obvious. The subject is flown for advanced medical care for medical personnel to make the determination.

Suggestion: The CAA directory provides a colour marking scheme that is an established standard. It directs the rescuer to write a description of the subject, clothing, etc. and to mark the location of where the subject was removed from by three crossed sticks.

Recommendation: Include this in the Preplan and also in the GSAR Manual. Also ask the CAA to bring this up at their annual general meeting, as there are a vast number of attendees there.

Action by: Revelstoke Search and Rescue/CAA

Name: Wally Mohn

Proposed Date: November 30, 2010

Follow up by: EMBC/PEP

6.3 Notification to Hospital of Deceased

The hospital wasn't notified that a deceased person was brought into the hospital. The emergency room attendant needs to be told so that they can be directed to another location.

Recommendation: During the annual seasonal preparedness workshop, advise responders of the proper procedure for when leaving a deceased subject at the hospital. These procedures should be shared with all responders.

Action by: Interior Health Authority

Name: Julie Lowes

Proposed Date: September 15, 2010

6.4 City of Revelstoke Internal Review

Comments:

- Revelstoke is a hub for adventure recreation. There is a need for a highly trained local response capability on short notice to provide the response lead with multiple agencies. This should be a paid position. It cannot be the responsibility of commercial industry to provide this. They are willing to assist when asked, but need someone to take the lead. Revelstoke SAR does a good job but they aren't equipped with the resources or funds to provide the level of response that could be required.
- Perhaps a contract between Forestry, BCAS and EMBC/PEP could assist.
- TEAMS (Temporary Emergency Management System) is available for EOCs. It was suggested that this could be looked at specifically for search and rescue to provide trained convergent resources to be quickly activated for a SAR response.

- This should be dealt with provincially as it isn't unique to this area – it affects any recreation area in the province.
- Need to conduct table top exercises so that the lead agency is identified for different situations.
- A distribution list is available of the agency personnel on call – Forests, BC Hydro, etc and within an hour a conference call can be arranged for all those agencies required and involved. A lead agency and subject matter experts would be identified. Decisions would be made together.
- Commercial Operators have an emergency response plan that they are willing to share. Interior Health also has an emergency plan.

Recommendation: City of Revelstoke to conduct an internal review

Action by: City of Revelstoke

Name: Wade Rota

Proposed Date: April 20, 2010

6.5 Information Sharing

Information was being provided to the public through the media, but was not shared internally.

This will be addressed at the internal review.

Action by: City of Revelstoke

Name: Wade Rota

Proposed Date: April 20, 2010

6.6 Public Safety Review

Comments: There is a need for a response plan for a large scale interagency response. This should be developed through input from all agencies that might be asked to respond to an incident. This should also address authorization for expenditures. It was noted that the PEP website – www.pep.bc.ca answers many questions and the goal is to have regional staff provide upcoming hazards expected in the next season, highlight public safety lifeline groups and commercial industry responders. This should be completed in the fall.

Recommendation: conduct a public safety review meeting including all agencies and local resources to look at hazards, associated risks, resource availability, capability, roles, responsibilities, pre-plans, policies and procedures by looking at lessons learned from the Boulder Mountain incident to improve SAR response.

Action by: PEP

Name: Louise Bouchard

Proposed Date: November 30, 2010

6.7 Canadian Avalanche Association

The CAA relies on the information coming from the avalanche scene to validate the forecast to ensure that nothing is missed.

Recommendation: That CAA enter into a Memorandum of Understanding with PEP to ensure that public safety avalanche information is provided to the CAA promptly after each incident.

Action by: PEP

Name: Jeff Haack

Proposed date: September 15, 2010

6.8 Helipad

It was suggested that Revelstoke Hospital obtain an approved heli-pad due to the urgency of avalanche incidents.

Comments:

- a heli-spot may be a more achievable request, financially.
- Helicopters often attempt to land in the hospital parking lot and are always directed to the airport. There have been incidents in the past where they landed in the parking lot and it is very dangerous. Nursing staff are not available to attend, therefore it is a requirement that an ambulance attendant must be there to transfer the subject from the helicopter into the hospital. Also, staff would be required to move their vehicles which would be very inconvenient when they are dealing with critical patients.
- The hospital in Nakusp has a helipad and is only a short distance away.
- Jeff Haack will confirm with Public Safety Canada whether or not this project would qualify for JEPP funding.

Recommendation: Obtain a helipad at Revelstoke Hospital.

Action by: Interior Health Authority

Person: Julie Lowes

Proposed Date: Meeting to be completed by May 25, 2010

Follow up: EMBC/PEP

Status to BCSARA: September 15, 2010

6.9 SAR Management

There was no Revelstoke SAR Manager available to be on site. Although this is the preference, PEP allows leniency as in some areas of the province, because of the length of time it can take to get a manager on site, this isn't always possible in the first operational period. It was recommended that if there is not going to be a local SAR Manager available, the group must advise their mutual aid SAR group and let the RCMP know who the "on-duty" SAR Manager is.

6.9.1 Handover Procedures

No files or notes were provided to the incoming SAR Manager. The procedures in the SAR Management manual must be used. It was suggested that all SAR Managers should be trained to the Incident Command System 300 level. See attachment from SAR Management Manual (page 58 and pages 217 through 219).

Recommendation: Distribute and review the SAR Management Shift Exchange Briefing Checklist with Revelstoke SAR managers

Action by: SAR Regional Representative

Person: Wendy Hetherington

Proposed Date: July 1, 2010

6.10 Searcher Safety

A helicopter staffing area should have been established, and maintained, for safe landings and take offs. A jacket flew up into the rotor blade of

one Alpine machine at the staging area. Many people aren't trained to work around helicopters. This information should be included in the JIBC and CAA training material.

Recommendation: Incorporate helicopter safety into the training curriculum.

Action by: EMBC/PEP/CAA/JIBC

Person: Jeff Haack

Proposed Date: May 15, 2010

6.11 ICS Training

All agencies should be trained in ICS so that everyone understands each other's expectations.

Recommendation: A multi-agency ICS 200 course be offered and all responding agencies encourage their key responders to attend.

Action by: City of Revelstoke

Person: Wade Rota

Proposed Date: To be determined at Internal Review Meeting April 20, 2010

6.12 Resource Activation

Commercial operators need to be able to return to their regular business as soon as possible.

Recommendation: Activate other resources for subsequent operational period.

Action by: PEP

Person: Jeff Haack

Proposed Date: May 15, 2010

Follow up: September 15, 2010

6.13 RCMP Response

The RCMP are equipped with back country equipment, are trained and ready to respond. All members in Revelstoke are sled trained and 5 members are Avalanche Level 1 trained. They required timely helicopter transport to the scene.

Recommendation: RCMP to notify SAR responders in area of levels of training and response readiness.

Action by: RCMP

Person: Staff Sergeant Jackie Olsen

Proposed Date: September 15, 2010

Follow up: September 15, 2010

6.14 Coroner

The Coroner or his/her delegate needs to be flown to the scene as soon as possible after any fatality.

Recommendation: ensure this is included in the preplan

Action by: City of Revelstoke with the RCMP

Person: Wade Rota

Proposed Date: September 15, 2010

6.15 Trauma Resources

It was suggested that the hospital may benefit from additional trauma resources. CMH was asked to provide more specifics on this suggestion.

Action by: CMH

Person: Todd Guyn

Report back to: Deena Crane – Interior Health Association

7. CLOSING COMMENTS

- Everyone pulled together and did a good job. If this ever happens again we'll be better.
- Thanks to everyone for their involvement and support. This was a lesson that we didn't want to learn first hand but the community rallied. We need to continue building our relationships with each other.
- Worked very well – depended on the experience of those here.
- Great observations. Lots of challenges were voiced and we should be able to solve everything discussed today.
- Expressed gratitude on behalf of PEP. The SAR volunteers always step up to the plate, with the assistance of others that got involved without being asked. Then to get together after and see what was done and what we can do to be better - it's that dedication - thank you.
- Have gained a lot of understanding of the other key players. Hope those people have learned more to build on these relationships.
- Good learning experience. Thank you for organizing it.
- Thanks to PEP for this opportunity.
- The Review process is good. Learned a lot from this incident. We can't plan for every eventuality and the quick thinking that everyone makes made it come together. Thanks for the day.
- This was an education for all of us. Will provide a lot of good for the future.
- Commend all the user groups that worked together. Thanks to PEP to take the initiative to learn by what happened. Thanks for the day.
- Thank you for all your help - looking forward to the Cooperative meeting next year and to having more SAR managers.
- Review process is very good. I learned a lot. Good points brought up.
- Thanks to everyone for their positive comments and considerations. Always room for improvement.
- It's important to keep in mind that today is about solutions. How to make responses in general better. The real success is in how the agencies can better work together down the road.
- It was very interesting to be here. Thank you for inviting me and the information and to everyone for being so open.
- Learned lots today. It's about success and the future. The heli ski people and SAR prepared for this event by training and planning, responding quickly, and took risks to help people in need.
- Thanks to everyone for responding so quickly on such short notice. Great to see everyone come together and work for a common goal.

- Good information. Amazing how groups got together and did what they had to do.
- Thanks to everyone for coming here and on behalf of the city thank you to the first responders in particular. We should be celebrating our successes. There are tremendous successes and you're all part of that. We don't always have time to plan but we all had our act together to do the right things. Great to have everything in place but we only had 3 hours and it worked. Take credit for that – it's your good work that got it done.
- Happy to have these reviews – they're always helpful. It's good to come and touch base with different people. Use what we've learned from this during the next incident that happens.
- Thank you for all the work that was done. Great to work with our mates in SAR, ambulance, hospital - you did a fantastic job.
- The expertise in this community is great. Good to come together afterwards to see how things can be improved. I'm proud to be a part of all the people in this room.
- This was great and I appreciate everyone being open today. The value is forming those relationships and planning. This is now documented and responsibility has been accepted. Everyone in this room is together in managing expectations. TV coverage served a good purpose in that people saw that as much as you can have a plan in place, it can't be immediate. Build on this and increase public awareness about the risk.
- Thanks to Linda Harfman for making all the arrangements for the review.
- Be proud of yourselves. It was my pleasure to assist you in this Review. It will not fail because I asked you to make a personal commitment. Together we will make sure these recommendations become a reality.

BEST PRACTICES REVIEW PARTICIPANTS

Bruce Allen – Coroner's Service Consultant
Chris Armstrong – Nelson SAR
Mike Aucoin – Canadian Mountain Holidays
Louise Bouchard – EMBC/PEP Regional Manager
Colani Bezzola – Canadian Mountain Holidays
Paul Buxton-Carr – BC Wildfire Management Branch
Mary Clayton – Canadian Avalanche Association
Kathy Crandlemire – BC Ambulance Service
Deena Crane – Interior Health Association
Tom Dickson – Snowmobile Revelstoke Society
Ken Gibson – Ministry of Tourism, Culture and Arts
Linda Harfman – EMBC/PEP Regional Office Administrator
Gord Hogaboam – Arrow Lakes SAR
Jeff Honig – Selkirk Tangiers Heli Skiing
Chad Hemphill – Revelstoke SAR
Andrew Inkster – Revelstoke SAR
Cyndie Jones – Nelson SAR
John Kelly – Canadian Avalanche Centre
Peter Kimmel – Revelstoke Search and Rescue
Luana Kaleikini – Revelstoke ESS
Liliane Lambert – Canadian Mountain Holidays
Doug Kepler – Revelstoke Snowmobile Club
Wally Mohn – Revelstoke SAR
Jacquie Olsen – Revelstoke RCMP
Steve Parsons – Revelstoke Mountain Resort
Dave Pekowich – Selkirk Tangiers
Peter Prendergast – EMBC/PEP Senior Regional Manager
David Raven – Mayor, City of Revelstoke
Wade Rota – Emergency Program Coordinator (alternate) Revelstoke
Mike Savage – RCMP Kelowna
Ross Shkuratoff – Arrow Lakes SAR
Angie Threatfy – Snowmobile Revelstoke Society
James Vickers – Canadian Mountain Holidays
John Warren – BC Ambulance Service
Marian Zachary – Critical Incident Stress Management Peer

Best Practices Review Facilitating Team

Dave Brewer - Facilitator
Jim McAllister – Co-Facilitator
Wendy Hetherington – BCSARA Regional Director
Jeff Haack – EMBC/PEP SAR Specialist
Linda West - Recorder

For information on conducting a Best Practice Review or the Best Practices Review Process, please contact Linda West at: Phone (250) 405-3500; Fax (250) 405-3505; email: lwest@jibc.ca

OPERATIONAL RESPONSES (Requests for Assistance)

TASK NUMBER ACQUISITION

Upon the initial request for assistance from a requesting agency the SAR Manager must call the Emergency Coordination Centre (ECC) in Victoria to acquire a PEP task number. ECC will request the file number of the requesting agency. Please see page 25 for a list of requesting agencies.

The task number should be acquired prior to SAR deployment and is usually obtained by the SAR Manager.

It should be remembered that if SAR Groups self deploy there is no WCB or liability coverage and no reimbursement of expenses.

**The ECC phone number is toll free:
1-800-663-3456**

Information Passage to ECC (Victoria)

When a SAR Manager phones the ECC for a task number pertaining to a search or rescue the ECC requires the following information.

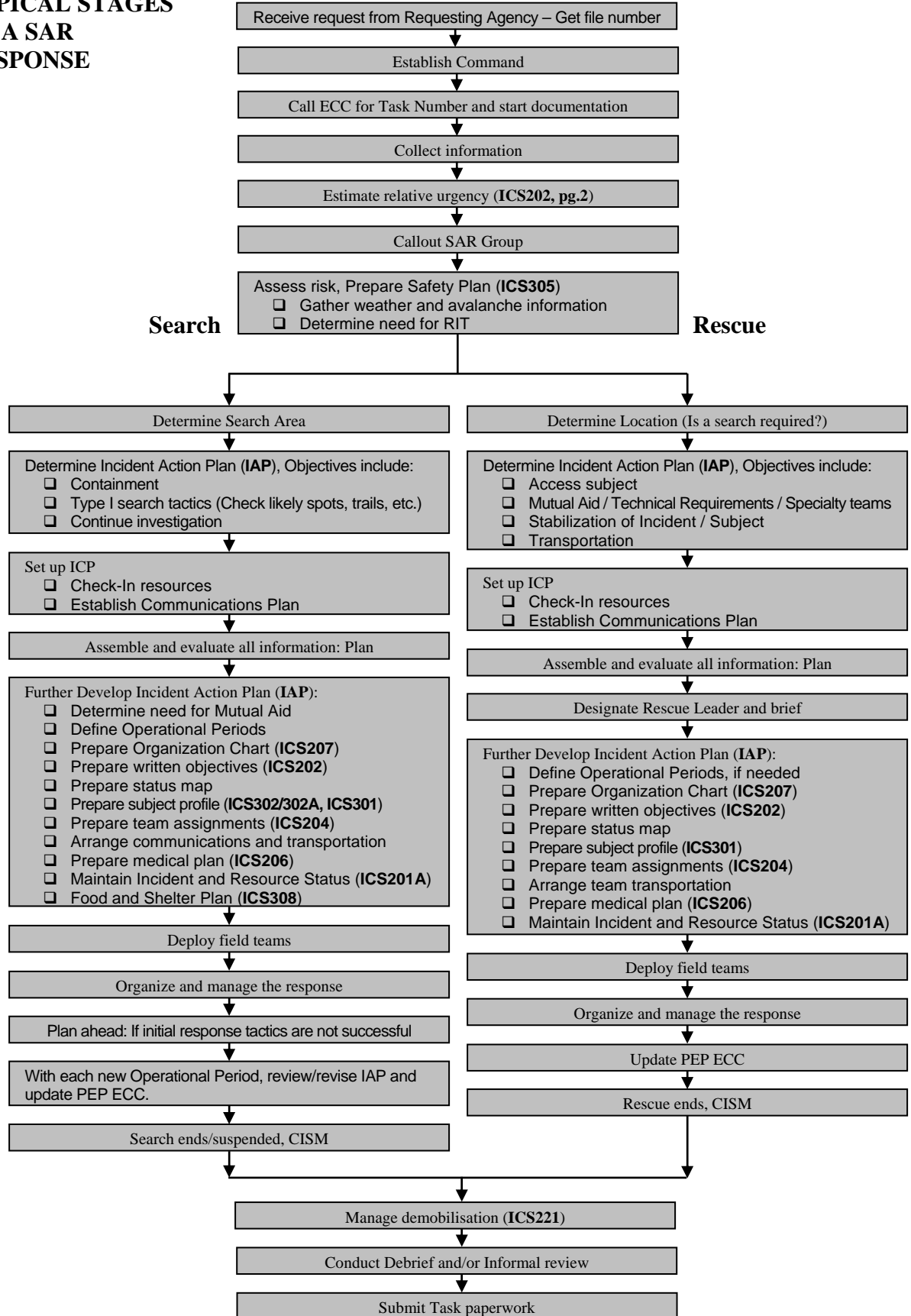
- a) Name and call-back number
- b) SAR Group
- c) Requesting Agency and File number (if available)
- d) Brief description of response
- e) Number of responders required or expected
- f) If entering avalanche terrain, will a CAA Avalanche technician with experience be attending?
- g) If helicopter use is anticipated, state if a helicopter usage agreement is in place.

Updates are required on arrival on-scene and regularly at a minimum of every four hours and at the end of each operational period. ECC must be updated if a searcher is injured or any major equipment damage or loss occurs.

This information also assists in maintaining accurate files on what PEP field personnel are involved with and have carried out. All SAR responses must be reported to the ECC.

The following is a summary of the stages of a typical SAR response. (Note: The order could change depending on the situation)

**TYPICAL STAGES
 OF A SAR
 RESPONSE**



	First Notice	New Info	New Info	Clue	New O.P.	Termination or Suspension	Completion	Task Close
SAR Manager	<ul style="list-style-type: none"> Maintain Log Manage Task Police File #, PEP Task # Call-out Group Members Establish ICP Hazard & Risk Assessment Assess Need for Safety Officer Create Incident Action Plan 	Brief Media Liaison			Request Mutual Aid	Overlap (New SAR Mgr.) Manage Task	CISM	<ul style="list-style-type: none"> Completed to SAR Mgr. Complete Task Report Complete BCSARIS Submit Claim Aps. Submit final paperwork
	<ul style="list-style-type: none"> Estimate Relative Urgency Conduct Interviews Review Lost Person Behaviour Build Subject Profile Create Scenarios Define Search Area Containment / Attraction Create Assignments 	Investigate	Investigate	Investigate	<ul style="list-style-type: none"> Planning Meeting to Redefine Objectives & Revise Tactics Create Assignments Plan for next O.P. Determine Needed Resources Prepare Briefing Material 	Debrief Subject	Completed to SAR Mgr.	
Planning	<ul style="list-style-type: none"> Plan Brief and Debrief Teams Documentation Maintain Status Map Demobilization Planning Coordinate Available Resources Operate Communications Assign and Manage Assignments Establish Comms Check-in Provide and Coordinate Transportation, Meals, Sanitation, Accommodations, etc. Manage Injury claims, Procure Supplies, Collect Receipts and Invoices 	Investigate	Investigate	Investigate			<ul style="list-style-type: none"> Completed to SAR Mgr. Documents to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. Completed to SAR Mgr. 	
	<ul style="list-style-type: none"> Demobilize Comms Eqpt. Check-in 						Completed to SAR Mgr.	
	<ul style="list-style-type: none"> Asst. Forms to SAR Mgr. 						Completed to SAR Mgr.	
	<ul style="list-style-type: none"> Completed to SAR Mgr. 						Completed to SAR Mgr.	
Admin./Finance							Completed to SAR Mgr.	

BC SAR File Management System

Managing information at a large-scale search can be a difficult task. Success during the large-scale response depends on proper management of information from the very beginning of the first operational period. Though there are many acceptable ways to organize and file information, one recommended system was devised for SAR management. The BC SAR File Management System has been developed to provide SAR Management Teams with a standardised system that can be used to organize information and documentation during any SAR response, large or small. By utilising this system and the appropriate ICS forms all the time, SAR Managers and their management teams will already be set up when the small search becomes a large one.



A standardised system ensures consistency between different SAR managers as well simplified shift changes at the end of operational periods. With a standardised, consistent file management system, SAR Managers are free to concentrate on the task at hand. An organized file management system will also make it much easier to find documents later for reference. As all of the documentation for the search can become part of the police file related to the response, it is important to maintain proper documentation and to store it in an organized fashion.

The system consists of 12 folders; the whole set utilised for one response. Each folder has a specific purpose, as noted in the list below. All of the folders, along with a good supply of blank ICS forms, can easily fit into a slim file box.

The system is designed to be very functional. The most active folders are at the front and the final documentation, task report and expense claims, are at the back. There is a place for each and every ICS form as well as any additional documentation related to the response.

By making it a practice to utilise the file management system for even small searches SAR Managers will be prepared when the small search becomes a big one.

Instructions for Use of the SAR File Management System

- Utilise ICS forms for gathering and recording information.
- Forms for assignments in progress may be posted on the wall of the ICP or filed in the appropriate folder.
- Some on-going documentation is stored in the file, such as new, unassigned assignments, subject information, etc.
- Planning places new assignment forms in folder 1 for Operations to draw from. Sort by priority.
- Completed forms are filed in the appropriate file folder. Refer to the following list.
- If there is more than one lost person, create a separate file folder for each.
- For subsequent operational periods, create a separate folder for each operational period for #3 Assignments Complete and #9 Past Operational Period's Administrative Documents.
- The file box becomes the warehouse for all documentation associated with the response.

Benefits

- Members of the SAR Management team will know where to find documentation.
- Every document associated with a response has one filing place.
- The system is standardised; incoming SAR managers will know where to look for certain documents.
- A standardised system will help a SAR management team to get up to speed more quickly; not spending time trying to get organized.
- Documents are organized for submission to police as part of their file, including responses that may turn into criminal cases.

The following list details the format of the file management system and its contents. Each of the ICS forms in the BC set has a place in the filing system.

BC SEARCH AND RESCUE FILE MANAGEMENT SYSTEM

FILE FOLDER #	FILE SUBJECT	CONTENTS
1	<p>Assignments Unassigned</p> <p>Sort by priority, highest priority at front. Secondary sort by resource type.</p>	ICS204 TEAM ASSIGNMENT SHEETS, unassigned
2	<p>Assignments in Progress</p>	ICS204 TEAM ASSIGNMENT SHEETS
3	<p>Assignments Completed</p> <p>Separate folder for each Operational Period, i.e. 3-1, 3-2, etc.</p>	ICS204 TEAM ASSIGNMENT SHEETS, DEBRIEFING SHEETS ICS216 URBAN SEARCH LOG (Accompany ICS204 for the assignment)
4	<p>Subject Information</p> <p>Add additional folders for each subject and include subject number, i.e. 4-1, 4-2, etc. for subject 1, 2, etc.</p>	ICS301 SUBJECT PROFILE ICS302 LOST PERSON QUESTIONNAIRE ICS302A MISSING VESSEL QUESTIONNAIRE Associated Vehicle investigation Photos Results of subject investigation, record on ICS214 UNIT LOG for the Investigation Unit.
5	<p>Clues</p>	ICS204C CLUE TRACKING SHEET ICS204T TRACK REPORT
6	<p>Maps</p>	Status and Planning maps. Assignment maps should accompany ICS204.
7	<p>Check-In Sheets</p>	ICS211 CHECK-IN LIST
8	<p>Special Resource Reports</p> <p>Group together by Operational Period.</p>	Police Service Dog reports Dive Team reports Helicopter reports Fixed-Wing reports All other special resource reports
9	<p>Past Operational Period's Administrative Documents</p> <p>Separate folder for each Operational Period, i.e. 9-1, 9-2, etc. ICS201 should be at the front of each O.P. folder.</p>	ICS201 INCIDENT BRIEFING ICS201A RESOURCE STATUS ICS202 INCIDENT OBJECTIVES ICS205 COMMUNICATIONS PLAN ICS206 MEDICAL PLAN ICS207 ORGANIZATION CHART ICS213 GENERAL MESSAGE ICS214 UNIT LOG(s) ICS215 OPERATIONS PLAN ICS215A OPERATIONS PLAN WORKSHEET ICS220 AIR OPERATIONS PLAN ICS221 DEMOBILIZATION PLAN ICS303 EQUIPMENT INVENTORY ICS305 SAFETY PLAN ICS307 TRANSPORTATION PLAN ICS308 FOOD and SHELTER PLAN <i>All other miscellaneous documentation, i.e. notes.</i>
10	<p>Press Releases</p>	ICS306 PRESS RELEASE
11	<p>Task Claims</p>	Equipment repair/replacement requests Personal expense sheets and supplements and receipts SAR Group expense invoices and receipts
12	<p>Task Report</p>	ICS209 INCIDENT STATUS SUMMARY ICS309 LOG Task Report Form

